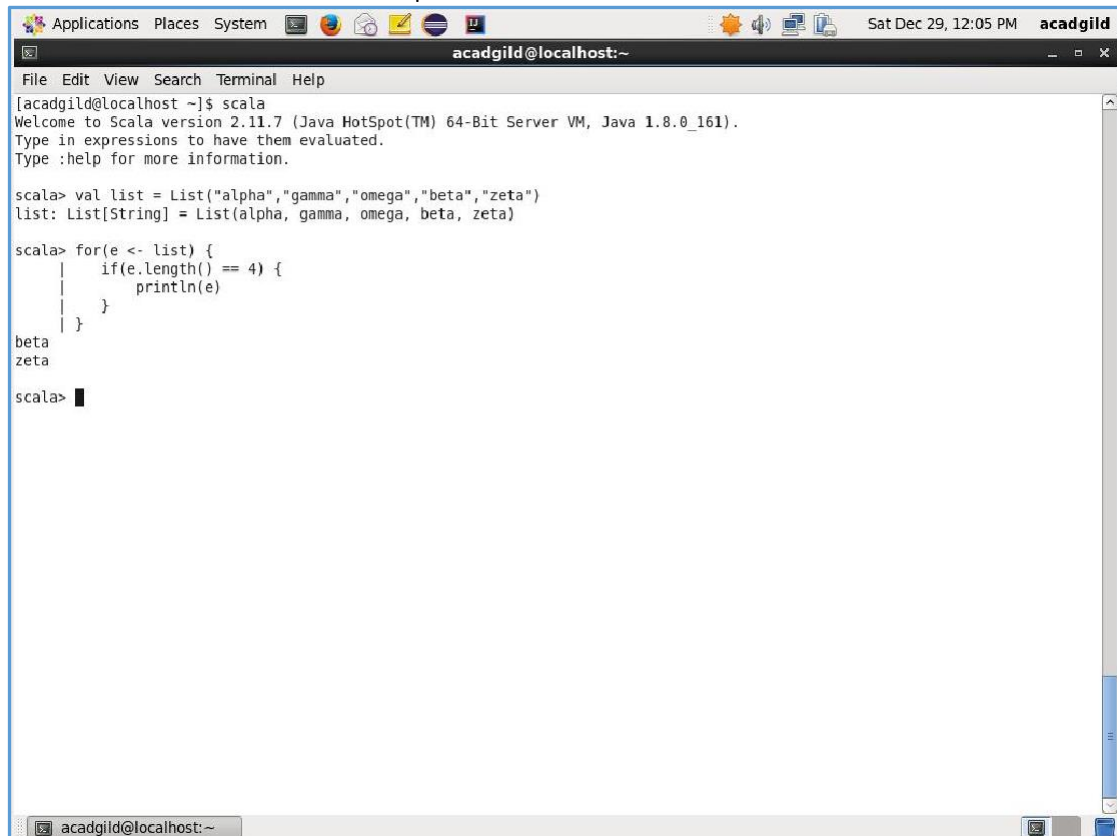


Assignment Scala 1

Task 1

Screenshot of the virtual machine output.

A screenshot of a terminal window titled 'acadgild@localhost:~'. The window shows the execution of the Scala REPL. The user enters 'scala', which outputs the Scala version and JVM information. Then, the user enters a list creation and a for-loop filter. The output shows the list and the filtered elements 'beta' and 'zeta'.

```
[acadgild@localhost ~]$ scala
Welcome to Scala version 2.11.7 (Java HotSpot(TM) 64-Bit Server VM, Java 1.8.0_161).
Type in expressions to have them evaluated.
Type :help for more information.

scala> val list = List("alpha","gamma","omega","beta","zeta")
list: List[String] = List(alpha, gamma, omega, beta, zeta)

scala> for(e <- list) {
  |   if(e.length() == 4) {
  |     println(e)
  |   }
  | }
beta
zeta

scala> █
```

Task 2

Screenshot of output and commands

- Find count of all strings with length 4

Commands

```
val data = List("alpha", "gamma", "omega", "zeta", "beta")
// count of strings with length 4
val result = data.filter(x => x.length == 4).size
println("Strings with length 4: "+result)
```

Output

```
"C:\Program Files\Java\jdk1.8.0_131\bin\java.exe" ...  
Strings with length 4: 2
```

- Convert the list of string to a list of integers, where each string is mapped to its corresponding length

Commands

```
// Convert list of strings to list of integers  
println("List of strings to length of strings")  
println(for(elem<-data) yield elem.length)
```

Output

```
List of strings to length of strings  
List(5, 5, 5, 4, 4)
```

- Find count of all strings which contain alphabet 'm'

Commands

```
// Count of all strings with letter m  
println("Count of strings with letter m")  
val result2 = data.filter(x => x contains 'm').size  
println(result2)
```

Output

```
Count of strings with letter m  
2
```

- Find the count of all strings which start with the alphabet 'a'

Commands

```
// Count of all strings with letter a  
println("Count of strings with letter a")  
val result3 = data.filter(x => x.startsWith("a")).size  
println(result3)
```

Output

```
Count of strings with letter a  
1
```

Task 3

Create a Scala application to find the GCD of two numbers

Commands

```
def gcd(x: Int,y: Int): Int = {  
  if(y == 0) x else gcd(y, x%y)  
}
```

Output

```
GCD of 2 numbers  
5
```